



89188-0130.ST25.txt
SEQUENCE LISTING

<110> GILL, PARKASH S.

<120> NOVEL INHIBITORS OF ANGIOGENESIS AND TUMOR GROWTH

<130> 89188.0130

<140> US 09/743,684

<141> 2001-04-23

<150> PCT/US99/15772

<151> 1999-07-12

<150> US 60/092,647

<151> 1998-07-13

<160> 63

<170> PatentIn version 3.4

<210> 1

<211> 524

<212> PRT

<213> Homo sapiens

<220>

<223> prosaposin

<220>

<221> PEPTIDE

<222> (195)..(275)

<223> Saposin B

<400> 1

Met Tyr Ala Leu Phe Leu Leu Ala Ser Leu Leu Gly Ala Ala Leu Ala
1 5 10 15
Gly Pro Val Leu Gly Leu Lys Glu Cys Thr Arg Gly Ser Ala Val Trp
20 25 30
Cys Gln Asn Val Lys Thr Ala Ser Asp Cys Gly Ala Val Lys His Cys
35 40 45
Leu Gln Thr Val Trp Asn Lys Pro Thr Val Lys Ser Leu Pro Cys Asp
50 55 60
Ile Cys Lys Asp Val Val Thr Ala Ala Gly Asp Met Leu Lys Asp Asn
65 70 75 80
Ala Thr Glu Glu Glu Ile Leu Val Tyr Leu Glu Lys Thr Cys Asp Trp
85 90 95
Leu Pro Lys Pro Asn Met Ser Ala Ser Cys Lys Glu Ile Val Asp Ser
100 105 110
Tyr Leu Pro Val Ile Leu Asp Ile Ile Lys Gly Glu Met Ser Arg Pro
115 120 125
Gly Glu Val Cys Ser Ala Leu Asn Leu Cys Glu Ser Leu Gln Lys His
130 135 140

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Leu Ala Glu Leu Asn His Gln Lys Gln Leu Glu Ser Asn Lys Ile Pro
 145 150 155 160
 Glu Leu Asp Met Thr Glu Val Val Ala Pro Phe Met Ala Asn Ile Pro
 165 170 175
 Leu Leu Leu Tyr Pro Gln Asp Gly Pro Arg Ser Lys Pro Gln Pro Lys
 180 185 190
 Asp Asn Gly Asp Val Cys Gln Asp Cys Ile Gln Met Val Thr Asp Ile
 195 200 205
 Gln Thr Ala Val Arg Thr Asn Ser Thr Phe Val Gln Ala Leu Val Glu
 210 215 220
 His Val Lys Glu Glu Cys Asp Arg Leu Gly Pro Gly Met Ala Asp Ile
 225 230 235 240
 Cys Lys Asn Tyr Ile Ser Gln Tyr Ser Glu Ile Ala Ile Gln Met Met
 245 250 255
 Met His Met Gln Pro Lys Glu Ile Cys Ala Leu Val Gly Phe Cys Asp
 260 265 270
 Glu Val Lys Glu Met Pro Met Gln Thr Leu Val Pro Ala Lys Val Ala
 275 280 285
 Ser Lys Asn Val Ile Pro Ala Leu Glu Leu Val Glu Pro Ile Lys Lys
 290 295 300
 His Glu Val Pro Ala Lys Ser Asp Val Tyr Cys Glu Val Cys Glu Phe
 305 310 315 320
 Leu Val Lys Glu Val Thr Lys Leu Ile Asp Asn Asn Lys Thr Glu Lys
 325 330 335
 Glu Ile Leu Asp Ala Phe Asp Lys Met Cys Ser Lys Leu Pro Lys Ser
 340 345 350
 Leu Ser Glu Glu Cys Gln Glu Val Val Asp Thr Tyr Gly Ser Ser Ile
 355 360 365
 Leu Ser Ile Leu Leu Glu Glu Val Ser Pro Glu Leu Val Cys Ser Met
 370 375 380
 Leu His Leu Cys Ser Gly Thr Arg Leu Pro Ala Leu Thr Val His Val
 385 390 395 400
 Thr Gln Pro Lys Asp Gly Gly Phe Cys Glu Val Cys Lys Lys Leu Val
 405 410 415
 Gly Tyr Leu Asp Arg Asn Leu Glu Lys Asn Ser Thr Lys Gln Glu Ile
 420 425 430
 Leu Ala Ala Leu Glu Lys Gly Cys Ser Phe Leu Pro Asp Pro Tyr Gln
 435 440 445
 Lys Gln Cys Asp Gln Phe Val Ala Glu Tyr Glu Pro Val Leu Ile Glu
 450 455 460
 Ile Leu Val Glu Val Met Asp Pro Ser Phe Val Cys Leu Lys Ile Gly
 465 470 475 480

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Ala Cys Pro Ser Ala His Lys Pro Leu Leu Gly Thr Glu Lys Cys Ile
485 490 495

Trp Gly Pro Ser Tyr Trp Cys Gln Asn Thr Glu Thr Ala Ala Gln Cys
500 505 510

Asn Ala Val Glu His Cys Lys Arg His Val Trp Asn
515 520

<210> 2
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<212> PRT
<213> Homo sapiens

<220>
<223> Saposin B

<400> 2

Gly Asp Val Cys Gln Asp Cys Ile Gln Met Val Thr Asp Ile Gln Thr
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Ala Val Arg Thr Asn Ser Thr Phe Val Gln Ala Leu Val Glu His Val
20 25 30

Lys Glu Glu Cys Asp Arg Leu Gly Pro Gly Met Ala Asp Ile Cys Lys
35 40 45

Asn Tyr Ile Ser Gln Tyr Ser Glu Ile Ala Ile Gln Met Met Met His
50 55 60

Met Gln Pro Lys Glu Ile Cys Ala Leu Val Gly Phe Cys Asp Glu Val
65 70 75 80

Lys

<210> 3
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amplifying Saposin B cDNA

<400> 3

attcgaattc aaggggacgt ttgccaggac tgc

33

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amplifying Saposin B cDNA

<400> 4

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ttctgtgatg aggtgaaata gctcgagctc gag

<210> 5
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<220>
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ctagatctag aaatgtacgc cctcttcctc ctggcc 36

<210> 6
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 <212> DNA
 <213> Artificial Sequence

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<210> 7
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<220>
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<210> 8
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 PCR amplification of Saposin A

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ctcgagctcg agtcacttct ggagagactc gcagag 36

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<210> 10
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<220>
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<210> 11
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<220>
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<210> 12
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 <213> Artificial Sequence

<220>
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 PCR amplification of Saposin D

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ctcgagctcg agtcacttat gggccgaggg gcaggg 36

<210> 13
 <211> 15
 <212> PRT
 <213> Artificial Sequence

<220>
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 polypeptide

<400> 13

Gln Pro Lys Asp Asn Gly Asp Val Cys Gln Asp Cys Ile Gln Val
 1 5 10 15

<210> 14

<211> 17

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: anti-angiogenic polypeptide

<400> 14

Ile Gln Met Val Thr Asp Ile Gln Thr Ala Val Arg Thr Asn Ser Thr
 1 5 10 15

Phe

<210> 15

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: S23-R39 anti-angiogenic polypeptide

<400> 15

Ser Thr Phe Val Gln Ala Leu Val Glu His Val Lys Glu Glu Cys Asp
 1 5 10 15

Arg

<210> 16

<211> 14

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: anti-angiogenic polypeptide

<400> 16

Cys Asp Arg Leu Gly Pro Gly Met Ala Asp Lys Asn Tyr Ser
 1 5 10

<210> 17

<211> 18

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Y51-P68 anti-angiogenic polypeptide

<400> 17

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Tyr Ile Ser Gln Tyr Ser Glu Ile Ala Ile Gln Met Met Met His Met
 1 5 10 15

Gln Pro

<210> 18
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: anti-angiogenic polypeptide

<400> 18

Gln Met Met Met His Met Gln Pro Lys Glu Ile Cys Ala Leu Val Gly
 1 5 10 15

<210> 19
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: G1-V11 anti-angiogenic polypeptide

<400> 19

Gly Asp Val Cys Gln Asp Cys Ile Gln Met Val
 1 5 10

<210> 20
 <211> 11
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: G1-(S4, S7)-V11 anti-angiogenic polypeptide

<400> 20

Gly Asp Val Ser Gln Asp Ser Ile Gln Met Val
 1 5 10

<210> 21
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 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: D2-V11 anti-angiogenic polypeptide

<400> 21

Asp Val Cys Gln Asp Cys Ile Gln Met Val
 1 5 10

<210> 22

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: G1-Q5
 anti-angiogenic polypeptide

<400> 22

Gly Asp Val Cys Gln
 1 5

<210> 23

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: D6-V12
 anti-angiogenic polypeptide

<400> 23

Asp Cys Ile Gln Met Val
 1 5

<210> 24

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: D2-M10
 anti-angiogenic polypeptide

<400> 24

Asp Val Cys Gln Asp Cys Ile Gln Met
 1 5

<210> 25

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: D2-Q9
 anti-angiogenic polypeptide

<400> 25

Asp Val Cys Gln Asp Cys Ile Gln
 1 5

<210> 26
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: D2-I8
anti-angiogenic polypeptide

<400> 26

Asp Val Cys Gln Asp Cys Ile
1 5

<210> 27
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: D2-C7
anti-angiogenic polypeptide

<400> 27

Asp Val Cys Gln Asp Cys
1 5

<210> 28
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: D2-D6
anti-angiogenic polypeptide

<400> 28

Asp Val Cys Gln Asp
1 5

<210> 29
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: V3-V11
anti-angiogenic polypeptide

<400> 29

Val Cys Gln Asp Cys Ile Gln Met Val
1 5

<210> 30

<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: C4-V11
anti-angiogenic polypeptide

<400> 30

Cys Gln Asp Cys Ile Gln Met Val
1 5

<210> 31
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Q5-V11
anti-angiogenic polypeptide

<400> 31

Gln Asp Cys Ile Gln Met Val
1 5

<210> 32
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: G1-(S4)-V11
anti-angiogenic polypeptide

<400> 32

Gly Asp Val Ser Gln Asp Cys Ile Gln Met Val
1 5 10

<210> 33
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: G1-(S7)-V11
anti-angiogenic polypeptide

<400> 33

Gly Asp Val Cys Gln Asp Ser Ile Gln Met Val
1 5 10

<210> 34
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: G1-(S4)-D6
anti-angiogenic polypeptide

<400> 34

Gly Asp Val Ser Gln Asp
1 5

<210> 35
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
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anti-angiogenic polypeptide

<400> 35

Asp Ala Cys Gln Asp
1 5

<210> 36
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: D2-(I3)-D6
anti-angiogenic polypeptide

<400> 36

Asp Ile Cys Gln Asp
1 5

<210> 37
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: D2-(L3)-D6
anti-angiogenic polypeptide

<400> 37

Asp Leu Cys Gln Asp
1 5

<210> 38
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: D2-(S5)-D6

anti-angiogenic polypeptide

<400> 38

Asp Val Cys Ser Asp
 1 5

<210> 39

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: D2-(E5)-D6
 anti-angiogenic polypeptide

<400> 39

Asp Val Cys Glu Asp
 1 5

<210> 40

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: D2-(D5)-D6
 anti-angiogenic polypeptide

<400> 40

Asp Val Cys Asp Asp
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<210> 41

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Q67-E80
 anti-angiogenic polypeptide

<400> 41

Gln Pro Lys Glu Ile Cys Ala Leu Val Gly Phe Cys Asp Glu Val Lys
 1 5 10 15

<210> 42

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: C37-S53
 anti-angiogenic polypeptide

<400> 42

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Cys Asp Arg Leu Gly Pro Gly Met Ala Lys Ile Cys Lys Asn Tyr Ile
 1 5 10 15

Ser

<210> 43
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Q9-F15
 anti-angiogenic polypeptide

<400> 43

Gln Met Val Thr Asp Ile Gln Thr Gln Val Arg Thr Asn Ser Thr Phe
 1 5 10 15

<210> 44
 <211> 70
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: anti-angiogenic
 polypeptide

<220>
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 <222> (1)..(6)
 <223> Xaa = any amino acid, Xaa at positions 1-6 may be
 present or absent

<220>
 <221> MOD_RES
 <222> (12)..(70)
 <223> Xaa = any amino acid, Xaa at positions 12-70 may
 be present or absent

<400> 44

Xaa Xaa Xaa Xaa Xaa Xaa Asp Val Cys Gln Asp Xaa Xaa Xaa Xaa Xaa
 1 5 10 15

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20 25 30

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 35 40 45

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 50 55 60

Xaa Xaa Xaa Xaa Xaa Xaa
 65 70

<210> 45
 <211> 70

<212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: anti-angiogenic polypeptide

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 <223> Xaa = any amino acid, Xaa at positions 1-5 may range from 1-5 residues

<220>
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 <222> (6)
 <223> Xaa = Gly, Ala, Ser or Thr

<220>
 <221> MOD_RES
 <222> (12)..(70)
 <223> Xaa = any amino acid, Xaa at positions 12-70 may be present or absent

<400> 45

Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Asp	Val	Cys	Gln	Asp	Xaa	Xaa	Xaa	Xaa	Xaa
1				5					10					15	
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
			20					25					30		
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
			35					40					45		
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa
			50					55					60		
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa										
65															70

<210> 46
 <211> 70
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: anti-angiogenic polypeptide

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 <223> Xaa = variable amino acid

<220>
 <221> MOD_RES
 <222> (12)..(70)
 <223> Xaa = any amino acid, Xaa at positions 12-70 may be present or absent

<400> 46

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Gln Pro Lys Asp Asn Xaa Asp Val Cys Gln Asp Xaa Xaa Xaa Xaa Xaa
 1 5 10 15
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20 25 30
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 35 40 45
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 50 55 60
 Xaa Xaa Xaa Xaa Xaa Xaa
 65 70

<210> 47

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: anti-angiogenic polypeptide

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<222> (1)..(6)

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<222> (12)

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<220>

<221> MOD_RES

<222> (13)..(16)

<223> Xaa = any amino acid, Xaa at positions 13-16 may be present or absent

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Xaa Xaa Xaa Xaa Xaa Xaa Asp Val Cys Gln Asp Xaa Xaa Xaa Xaa Xaa
 1 5 10 15

<210> 48

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: anti-angiogenic polypeptide

<220>

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<223> Xaa = any amino acid, Xaa at positions 1-6 may be present or absent

<400> 48

Xaa Xaa Xaa Xaa Xaa Xaa Asp Val Cys Gln Asp Cys Ile Gln Met Val
 1 5 10 15

<210> 49

<211> 70

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: anti-angiogenic polypeptide

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<221> MOD_RES

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<223> Xaa = Gly, Ala, Ser or Thr

<220>

<221> MOD_RES

<222> (12)..(70)

<223> Xaa = any amino acid, Xaa at positions 12-70 may be present or absent

<400> 49

Gln Xaa Xaa Xaa Xaa Xaa Asp Val Cys Gln Asp Xaa Xaa Xaa Xaa Xaa
 1 5 10 15

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20 25 30

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 35 40 45

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 50 55 60

Xaa Xaa Xaa Xaa Xaa Xaa
 65 70

<210> 50

<211> 70

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: anti-angiogenic polypeptide

<220>

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<222> (1)

<223> Xaa = any amino acid, Xaa at position 1 may be

present or absent

<220>
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 <222> (3)..(5)
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<220>
 <221> MOD_RES
 <222> (6)
 <223> Xaa = Gly, Ala, Ser or Thr

<220>
 <221> MOD_RES
 <222> (12)..(70)
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<400> 50

Xaa Pro Xaa Xaa Xaa Xaa Asp Val Cys Gln Asp Xaa Xaa Xaa Xaa Xaa
 1 5 10 15

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20 25 30

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 35 40 45

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 50 55 60

Xaa Xaa Xaa Xaa Xaa Xaa
 65 70

<210> 51
 <211> 70
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: anti-angiogenic polypeptide

<220>
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 <222> (1)..(2)
 <223> Xaa = any amino acid, Xaa at positions 1 and 2 may be present or absent

<220>
 <221> MOD_RES
 <222> (4)..(5)
 <223> Xaa = any amino acid

<220>
 <221> MOD_RES
 <222> (6)
 <223> Xaa = Gly, Ala, Ser or Thr

<220>
 <221> MOD_RES

<222> (12)..(70)

<223> Xaa = any amino acid, Xaa at positions 12-70 may be present or absent

<400> 51

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Xaa Xaa Lys Xaa Xaa Xaa Asp Val Cys Gln Asp Xaa Xaa Xaa Xaa Xaa
 1          5          10          15
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
          20          25          30
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
          35          40          45
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
          50          55          60
Xaa Xaa Xaa Xaa Xaa Xaa
65          70

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<210> 52

<211> 70

<212> PRT

<213> Artificial Sequence

<220>

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<220>

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<222> (5)

<223> Xaa = any amino acid

<220>

<221> MOD_RES

<222> (6)

<223> Xaa = Gly, Ala, Ser or Thr

<220>

<221> MOD_RES

<222> (12)..(70)

<223> Xaa = any amino acid, Xaa at positions 12-70 may be present or absent

<400> 52

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Xaa Xaa Xaa Asp Xaa Xaa Asp Val Cys Gln Asp Xaa Xaa Xaa Xaa Xaa
 1          5          10          15
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
          20          25          30
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
          35          40          45

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Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 50 55 60

Xaa Xaa Xaa Xaa Xaa Xaa
 65 70

<210> 53
 <211> 70
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: anti-angiogenic polypeptide

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 <222> (1)..(4)
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 <222> (6)
 <223> Xaa = Gly, Ala, Ser or Thr

<220>
 <221> MOD_RES
 <222> (12)..(70)
 <223> Xaa = any amino acid, Xaa at positions 12-70 may be present or absent

<400> 53

Xaa Xaa Xaa Xaa Asn Xaa Asp Val Cys Gln Asp Xaa Xaa Xaa Xaa Xaa
 1 5 10 15

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20 25 30

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 35 40 45

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 50 55 60

Xaa Xaa Xaa Xaa Xaa Xaa
 65 70

<210> 54
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: anti-angiogenic polypeptide

<220>
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<222> (1)..(4)
 <223> Xaa = any amino acid, Xaa at positions 1-4 may be present or absent

<220>
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Xaa Xaa Xaa Xaa Xaa Xaa Asp Val Cys Gln Asp Cys Xaa Xaa Xaa Xaa
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Cys Ile Gln Val
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Cys Ile Gln Met
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